```
=> d his

     (FILE 'HOME' ENTERED AT 09:56:11 ON 05 NOV 2002)
     FILE 'CA' ENTERED AT 09:56:21 ON 05 NOV 2002
                E HAUTMAN D/AU
L1            14 S E5-6 AND DRINK?
L2             9 S L1 AND ION CHROMATOG?
                E JOYCE R/AU
L3            46 S E7-9,E18-19,E23,E27
L4            18 S L3 AND WATER
L5             3 S L3 AND OXYHAL?
L6             5 S L3 AND WATER/SO
L7            16 S L2,L5-6

=> d l7 bib,ab 1-16

L7   ANSWER 9 OF 16  CA  COPYRIGHT 2002 ACS
AN   118:109225  CA
TI   Using ion chromatography to analyze inorganic disinfection by-products
AU   Hautman, Daniel P.; Bolyard, Michele
CS   US Environ. Protect. Agency, Cincinnati, OH, 45268, USA
SO   Journal - American Water Works Association (1992), 84(11), 88-93
AB   Ion chromatog. is used to analyze drinking water for inorg. disinfection
     byproducts-the oxyhalides of Cl and Br.  This investigation focused on
     stabilizing and preserving ClO2- by studying several agents known to quench
     its reaction with species present in drinking water. Based on the initial
     stability study, ethylenediamine was an effective preservative and was
     further studied using finished water from various utilities.  Also, the
     measurement of BrO3- following ozonization of a river water matrix contg.
     0.037 mg Br-/L is illustrated.

L7   ANSWER 10 OF 16  CA  COPYRIGHT 2002 ACS
AN   117:118034  CA
TI   Analysis of inorganic disinfection by-products using ion chromatography
AU   Hautman, Daniel P.; Bolyard, Michele
CS   Technol. Appl., Inc., Cincinnati, OH, 45268, USA
SO   Proceedings - Water Quality Technology Conference (1992), Volume Date 1991,
     (Pt. 2), 1043-59
AB   The US EPA is developing regulations for disinfection byproducts (DBPs).
     Ion chromatog. (IC) is used to analyze drinking water for inorg. DBPs that
     occur as the oxyhalides of Cl and Br.  The oxyhalides of interest in this
     study are the anions ClO2-, ClO3-, and BrO3-.  Since a previous study by J.
     D. Pfaff and C. A. Brockhoff (1990) found that ClO2- was unstable in
     drinking water, several species known to react with ClO2- and potentially
     present in drinking water were investigated in reagent-grade water.  The
     ability of different preservatives to stabilize ClO2- concns. in these
     reagent water matrixes was investigated.  Based upon this initial stability
     study, ethylenediamine was found to be an effective preservative and was
     studied using finished drinking water from various utilities.  Also, the
     formation of BrO3- following ozonization is illustrated with data from a
     pilot treatment plant.

L7   ANSWER 11 OF 16  CA  COPYRIGHT 2002 ACS
AN   117:76098  CA
TI   Analysis of oxyhalide disinfection by-products and other anions of interest
     in drinking water by ion chromatography
AU   Hautman, Daniel P.; Bolyard, Michele
CS   Technol. Appl. Inc., Cincinnati, OH, 45268, USA
```

SO Journal of Chromatography (1992), 602(1-2), 65-74
AB The US EPA is developing regulations for various **drinking** water disinfection byproducts (DBPs) that involves developing anal. methods for the DBPs formed as a result of different disinfection treatments and collecting occurrence data for these species. **Ion chromatog.** is one method being used to analyze **drinking** water samples for the following inorg. DBPs: ClO2-, ClO3-, and BrO3-. These anions, however, are difficult to sep. from the common interfering anions Cl-, CO32-, and NO3-. A method is therefore presented by which tetraborate/boric acid is used to sep. these anions. Detection limits of the order of 10 μg/L, using cond. and UV detection, were obtained. Stability studies of ClO2- showing the effectiveness of ethylenediamine as a preservative and summary data for an occurrence of nitrite, nitrate and DBP precursor bromide are presented.

L7 ANSWER 12 OF 16 CA COPYRIGHT 2002 ACS
AN 117:55526 CA
TI Occurrence of chlorate in hypochlorite solutions used for **drinking** water disinfection
AU Bolyard, Michele; Fair, Patricia Snyder; **Hautman, Daniel P.**
CS Tech. Support Div., U.S. Environ. Protect. Agency, Cincinnati, OH, 45268, USA
SO Environmental Science and Technology (1992), 26(8), 1663-5
AB Hypochlorite solns. used for **drinking** water disinfection were obtained from 14 sites. In addn., source water samples (including both ground and surface waters) and **drinking** water samples were collected at these sites. Chlorate ion (ClO3-) concns. were detd. for all samples using **ion chromatog.** (10 μg/L reporting limit). Hypochlorite solns. contained 0.2-50 g/L ClO3-. Two of the source water samples had detectable levels of ClO3-, while all 14 **drinking** water samples contained ClO3- (ranging from 11 to 660 μg/L). Hypochlorite solns. used to disinfect **drinking** water contain significant levels of ClO3-, and ClO3- is present in **drinking** water as a direct result of this contamination.

L7 ANSWER 13 OF 16 CA COPYRIGHT 2002 ACS
AN 104:23835 CA
TI Ionic contamination: tracking it with ion chromatography
AU **Joyce, R. J.**
CS Dionex Corp., Sunnyvale, CA, 94088, USA
SO Ultrapure **Water** (1985), 2(4), 36-9
AB A review with 6 refs. on the development and state-of-the-art application of ion chromatog. for detn. of common anions and cations, carboxylates, and transition metal ions at ppb levels in industrial-use, high-purity waters is presented. Methods, including photometric detection and dual-column ion chromatog. in conjunction with effective cond. measurements, are emphasized.

=> log y
STN INTERNATIONAL LOGOFF AT 10:04:22 ON 05 NOV 2002

=> d his

(FILE 'HOME' ENTERED AT 10:23:16 ON 05 NOV 2002)
FILE 'CA' ENTERED AT 10:23:27 ON 05 NOV 2002
L1 10712 S (OXYHALIDE OR CLO2 OR CHLORINE DIOXIDE)
L2 1204 S L1(6A)(DETECT? OR DETERMIN? OR ASSAY? OR ANALY? OR ASSES? OR TEST? OR MEASUR? OR MONITOR? OR ESTIMAT? OR EVALUAT? OR EXAMIN? OR SENSE# OR SENSING OR SENSOR OR IDENTIF? OR PROBE# OR PROBING)
L3 5 S L2 AND (BORIC OR BORATE OR BO3 OR HBO3)

```
L4     191 S L1(5A) RESID?
L5     309 S L2 AND(COLOR? OR DYE OR SPECTROPHOT? OR SPECTROMET? OR AZO? OR
           PHOTOMET? OR REAGENT OR INDICATOR)
L6      20 S L4 AND L5
L7     289 S L5 NOT L4
L8     202 S L7 AND(WATER OR H2O OR AQUEOUS OR STABILITY OR(CL2 OR CL OR
           CHLORINE)(5A)PRESEN? OR REAGENT OR INDICATOR)
L9     226 S L3,L6,L8
L10    204 S L9 NOT PY>1999
L11    171 S L10 NOT(STRATOS? OR CHEMAREG OR OSO4 OR RHODAMINE OR
           PHENYLENEDIAMINE OR LIGNIN)
L12    151 S L11 NOT(CHEMILUM? OR ENZYM? OR OXYGENAT? OR DIPOLE OR TRIPHEN? OR
           TRIS OR MULTISPEC?)
L13     20 S L11 NOT L12
L14      1 S L13 AND OXY CHLORINE
L15    116 S L12 NOT(METHYLENE BLUE OR PULP OR MASS OR KRAFT OR CHLOROPHENOL OR
           TOLUIDINE)
L16     35 S L12 NOT L15
L17      2 S L16 AND(NH4OH OR METHYLORANGE)
L18     99 S L15 NOT(TROPOS? OR PHENYLBENZ? OR MICROB? OR TASTE OR ELECTRODE)
L19     17 S L15 NOT L18
L20      1 S L19 AND NETWORK
L21     98 S L18 NOT SPACE
L22    102 S L14,L17,L20-21
L23      3 S L3 AND L22

=> d bib,ab 1-102 l22

L22  ANSWER 16 OF 102  CA  COPYRIGHT 2002 ACS
AN   123:237075  CA
TI   Study of organic matter from raw and clarified waters by global analytical
     parameters
AU   Lefebvre, E.
CS   SAUR, Centre Pierre Crussard, Maurepas, 78310, Fr.
SO   Revue des Sciences de l'Eau (1995), 8(1), 125-50
LA   French
AB   The mol. wt. fractionation of dissolved org. matter in raw and clarified
     waters is described.  Raw and clarified waters (resp. rw and cw) were
     sampled in SAUR water plants.  All raw and clarified water samples were
     characterized according to total org. carbon (TOC), UV absorbance (254 nm),
     and trihalomethane formation potential (THMFP) under the following
     conditions: about 20°C, 4 mg Cl2/mg TOC, and a 72-h contact time in the
     dark.  A Dohrmann DC80 and a Uvikon 930 were used for the detn. of TOC
     (DOC) and UV-absorbance at 254 nm, resp.  When a preoxydation step was
     employed at the water plant, the clarification treatment was performed with
     a lab. app.  Bioeliminable Org. Dissolved Carbon in water was detd. by the
     method described.  Cl2 and ClO2 demands of raw and clarified waters were
     conducted as batch operations with oxidant doses of 1, 2, and 4 mg oxidant
     per mg TOC.  Residual chlorine and chlorine dioxide in solns. were detd.
     resp. by spectrophotometric measurements by two colorimetric DPD and ACVK
     methods.

L22  ANSWER 23 OF 102  CA  COPYRIGHT 2002 ACS
AN   119:194616  CA
TI   Effect of dimethyl sulfoxide as a masking agent for chlorine in the
     selective determination of aqueous chlorine dioxide
AU   Imaizumi, Noriko; Nakahara, Yumiko; Suzuki, Kayoko; Oikawa, Kikuo
CS   Niigata Coll. Pharm., Niigata, 950-21, Japan
```

SO Chemistry Letters (1993), (8), 1333-6
AB For the selective **detn.** of **aq. chlorine dioxide** (**ClO2**) in the mixed soln. with chlorine, ***DMSO (DMSO) was used as a masking agent for chlorine***. In **spectrophotometric** and iodometric **detn.** of **ClO2**, a large excess of DMSO did not have an effect on ClO2, but it completely depressed the interference from chlorine.

L22 ANSWER 31 OF 102 CA COPYRIGHT 2002 ACS
AN 115:120902 CA
TI Computer optimization in ion chromatography. II. A systematic evaluation of linear retention models for anions
AU Sosimenko, Andrew D.; Haddad, Paul R.
CS Dep. Anal. Chem., Univ. New South Wales, Kensington, 2033, Australia
SO Journal of Chromatography (1991), 546(1-2), 37-59
AB Extensive retention data for non-suppressed ion chromatog. of anions were acquired for 17 **analytes** (halides, **oxyhalides**, nitrite, nitrate, sulfite, sulfate, bisulfite, thiosulfate, phosphate, thiocyanate, carbonate, acetate, and oxalate) on 3 stationary phases (Waters IC Pak A, Hamilton PRP-X100 and Vydac 302.IC 4.6) by using 7 eluent types (benzoate, phthalate, hydroxide, carbonate/bicarbonate, gluconate/**borate**, p-toluenesulfonate, and phosphate). These retention data are used to assess the validity of retention models which predict a linear relation between the logarithm of solute capacity factor and the logarithm of the activity of the eluent competing anion. The linearity of these plots is uniformly good, but the slopes differ markedly from those predicted from theory. When the eluent contains 2 competing anions, neither the dominant equil. approach nor the effective charge approach give reliable prediction of the slopes. Optimization of one eluent parameter at a time (e.g., the concn. of the competing anion in the eluent) can be successful if the slope of the retention plot is detd. by measurement of analyte retention times at 2 eluent compns. falling at the extremes of the range of eluent compns. under consideration. An example of this "end points" method is provided, in which the concn. of a phthalate eluent is optimized.

L22 ANSWER 39 OF 102 CA COPYRIGHT 2002 ACS
AN 109:196775 CA
TI Selection of an **analytical** technique to **measure chlorine dioxide** in the field and **determination** of residual effectiveness
AU Thompson, Artis; Matthews, Nancy; Myers, Gordon L.; Owen, Douglas M.
CS Galveston Cty. Water Auth., Texas City, TX, USA
SO Proceedings - Water Quality Technology Conference (1988), Volume Date 1987, 15(Issue Answers Today's Water Qual. Prof.), 1043-54
AB **ClO2 residuals** can be **measured** reliably in water distribution systems using **colorimetric** methods if consistent and reproducible procedures are followed. Samples collected in the field must be shielded from light prior to anal. to avoid photolytic decompn. A sample bomb can be used effectively to collect and store samples for anal. Samples collected in the field should be analyzed immediately to avoid possible decompositional effects during transport. Bacterial counts after introducing ClO2 as a co-disinfectant may be high initially as a result of stripping of corrosion byproducts and other depositional layers on the inside of distribution piping, in which bacteria reside. Bacterial counts decrease with time as these materials are flushed from the system. Only white-staining gram pos. rods show resistance to the oxidizing effects of ClO2 in the distribution system.

L22 ANSWER 40 OF 102 CA COPYRIGHT 2002 ACS
AN 109:196562 CA

TI A critical review of the analytical methods currently used for the measurement of free, combined, and **oxy-chlorine** species
AU Gordon, Gilbert; Pacey, Gilbert E.; Cooper, William J.
CS Dep. Chem., Miami Univ., Oxford, OH, 45056, USA
SO Proceedings - Water Quality Technology Conference (1988), Volume Date 1987, 15(Issue Answers Today's Water Qual. Prof.), 1005-42
AB The review and discussion, with 75 refs., covers the measurement of free-, combined, and oxy-Cl species in **water**, including Cl and chloramine chem., ClO2 chem., potential interferences, Cl conversions, UV **spectrometric** detn. of Cl and chloramine, amperometric and iodometric titrns., **colorimetric** methods, electrode methods, chemiluminescence method, **ClO2**- and ClO3- **detn.**, and flow injection **anal.**

L22 ANSWER 47 OF 102 CA COPYRIGHT 2002 ACS
AN 103:188693 CA
TI Selective **determination** of **chlorine dioxide** using gas diffusion flow injection **analysis**
AU Hollowell, David A.; Pacey, Gilbert E.; Gordon, Gilbert
CS Dep. Chem., Miami Univ., Oxford, OH, 45056, USA
SO Anal. Chem. (1985), 57(14), 2851-4
AB An automated absorbance technique for the **detn.** of **aq. ClO2** was developed by using gas diffusion flow injection anal. A gas diffusion membrane is used to sep. the donor (sampling) stream from the acceptor (detecting) stream. The absorbance of **ClO2** was **monitored** at 359 nm. The first method uses **H2O** as the acceptor stream and gives a **detection** limit of 0.25 mg **ClO2**/L. This system is >550 times more selective for ClO2 than Cl. ***To further minimize Cl interference, oxalic acid is used in the acceptor stream.*** The detection limit for this system is 0.45 mg ClO2/L. This second system is >5400 times more selective for ClO2 than Cl. Both methods show excellent selectivity for ClO2 over Fe and Mn compds., as well as other oxychlorinated compds. such as ClO3- and ClO4-.

L22 ANSWER 59 OF 102 CA COPYRIGHT 2002 ACS
AN 93:191731 CA
TI Comparison between **colorimetric** and electrometric methods for chlorine and its derivative compounds
AU Piccardi, Giovanni; Barbolani, Emilia; Pantani, Francesco
CS Inst. Anal. Chem., Univ. Florence, Florence, 50121, Italy
SO Water, Air, Soil Pollut. (1980), 13(2), 197-205
AB A crit. comparison of the usual methods of detg. Cl and its compds., particularly those used as sterilants in potable **water** plants, showed that the o-tolidine test is neither reproducible nor specific. **ClO2** is best **detd.** by Acid Chrome Violet K. The role of amperometric titrn. in distinguishing between the various sterilants and in examg. the reactions involved in **water** chlorination is discussed.

L22 ANSWER 78 OF 102 CA COPYRIGHT 2002 ACS
AN 70:117967 CA
TI Behavior and **determination** of **chlorine dioxide**
AU Myhrstad, Jan A.; Samdal, J. E.
CS Norw. Inst. Water Res., Oslo, Norway
SO J. Amer. Water Works Ass. (1969), 61(4), 205-8
AB A new combination of methods for **detg. ClO2**, **ClO2**-, and Cl2 in **water** is discussed. The method is based on direct **photometric detn.** of **ClO2** with Acid Chrome Violet K; iodometric-potentiometric titrn. at pH 7 to give Cl2 + 0.80 ClO2; and an iodometric-potentiometric titrn. at pH 7 after acidifying to pH 2.5-3, to give Cl2 + ClO2 + ClO2-.

L22 ANSWER 89 OF 102 CA COPYRIGHT 2002 ACS
AN 59:67991 CA
OREF 59:12507a-b
TI The **colorimetric determination** of **chlorine dioxide** in the **presence** of **chlorine** in **water**
AU Kerenyi, P.; Kuba, P.
CS Chem. Zavody J. Dimitrova, Bratislava, Czech.
SO Chem. Zvesti (1963), 17, 146-51
AB By applying ClO2 for **water** treatment it is necessary to det. its residual content in the treated **water** in the **presence** of **Cl**. The use of tyrosine for this purpose is discussed. ***To eliminate the interfering effect of Cl, monoethylamine is applied.***

L22 ANSWER 92 OF 102 CA COPYRIGHT 2002 ACS
AN 55:53203 CA
OREF 55:10191g-h
TI **Determination** of **chlorine dioxide** in concentrated solutions in the **presence** of **chlorine**
AU Lepeintre, Marcel; Dupuy, Jeanine; Ouvard, Jean
SO Chim. anal. (1960), 42, 498-500
AB ClO2 forms a **colored** product with tyrosine. ***The interference of Cl is removed by fixation with EtNH2.*** The absorption of the **colored** product is measured at 490 mμ with an error within 5%.

=> log y
STN INTERNATIONAL LOGOFF AT 11:46:59 ON 05 NOV 2002

Jacob, Rebecca (ASRC) 419237

From: Mellerson, Kendra
Sent: Tuesday, November 05, 2002 2:26 PM
To: STIC-ILL
Subject: FW: ill request

-----Original Message-----
Fr m: Soderquist, Arlen
Sent: Tuesday, November 05, 2002 2:02 PM
T : STIC-EIC1700
Subject: ill request

Arlen Soderquist AU 1743 308-3989 CP3-7A11
Serial No. 09/394647 Needed by 11-10-02
Abstract

L7 ANSWER 10 OF 16 CA COPYRIGHT 2002 ACS
AN 117:118034 CA
TI Analysis of inorganic disinfection by-products using **ion chromatography**
AU **Hautman, Daniel P.**; Bolyard, Michele
CS Technol. Appl., Inc., Cincinnati, OH, 45268, USA
SO Proceedings - Water Quality Technology Conference (1992), Volume Date 1991, (Pt. 2), 1043-59
AB The US EPA is developing regulations for disinfection byproducts (DBPs). **Ion chromatog.** (IC) is used to analyze **drinking** water for inorg. DBPs that occur as the oxyhalides of Cl and Br. The oxyhalides of interest in this study are the anions ClO2-, ClO3-, and BrO3-. Since a previous study by J. D. Pfaff and C. A. Brockhoff (1990) found that ClO2- was unstable in **drinking** water, several species known to react with ClO2- and potentially present in **drinking** water were investigated in reagent-grade water. The ability of different preservatives to stabilize ClO2- concns. in these reagent water matrixes was investigated. Based upon this initial stability study, ethylenediamine was found to be an effective preservative and was studied using finished **drinking** water from various utilities. Also, the formation of BrO3- following ozonization is illustrated with data from a pilot treatment plant.

COMPLETED

Jacob, Rebecca (ASRC) 4,9234

From: Mellerson, Kendra
Sent: Tuesday, November 05, 2002 2:26 PM
To: STIC-ILL
Subject: FW: ill request

-----Original Message-----
Fr m: Soderquist, Arlen
Sent: Tuesday, November 05, 2002 1:56 PM
T : STIC-EIC1700
Subject: ill request

Arlen Soderquist AU 1743 308-3989 CP3-7A11
Serial No. 09/394647 Needed by 11-10-02
Abstract

L22 ANSWER 39 OF 102 CA COPYRIGHT 2002 ACS
AN 109:196775 CA
TI Selection of an **analytical** technique to **measure chlorine dioxide** in the field and **determination** of residual effectiveness
AU Thompson, Artis; Matthews, Nancy; Myers, Gordon L.; Owen, Douglas M.
CS Galveston Cty. Water Auth., Texas City, TX, USA
SO Proceedings - Water Quality Technology Conference (1988), Volume Date 1987, 15(Issue Answers Today's Water Qual. Prof.), 1043-54
AB **ClO2 residuals** can be **measured** reliably in water distribution systems using **colorimetric** methods if consistent and reproducible procedures are followed. Samples collected in the field must be shielded from light prior to anal. to avoid photolytic decompn. A sample bomb can be used effectively to collect and store samples for anal. Samples collected in the field should be analyzed immediately to avoid possible decompositional effects during transport. Bacterial counts after introducing ClO2 as a co-disinfectant may be high initially as a result of stripping of corrosion byproducts and other depositional layers on the inside of distribution piping, in which bacteria reside. Bacterial counts decrease with time as these materials are flushed from the system. Only white-staining gram pos. rods show resistance to the oxidizing effects of ClO2 in the distribution system.

COMPLETED

Jacob, Rebecca ([redacted] SRC)

4192 33

From: Mellerson, Kendra
Sent: Tuesday, November 05, 2002 2:26 PM
To: STIC-ILL
Subject: FW: ill request

-----Original Message-----
From: Soderquist, Arlen
Sent: Tuesday, November 05, 2002 1:55 PM
To: STIC-EIC1700
Subject: ill request

Arlen Soderquist AU 1743 308-3989 CP3-7A11
Serial No. 09/394647 Needed by 11-10-02
Abstract

L22 ANSWER 40 OF 102 CA COPYRIGHT 2002 ACS
AN 109:196562 CA
TI A critical review of the analytical methods currently used for the measurement of free, combined, and **oxy-chlorine** species
AU Gordon, Gilbert; Pacey, Gilbert E.; Cooper, William J.
CS Dep. Chem., Miami Univ., Oxford, OH, 45056, USA
SO Proceedings - Water Quality Technology Conference (1988), Volume Date 1987, 15(Issue Answers Today's Water Qual. Prof.), 1005-42
AB The review and discussion, with 75 refs., covers the measurement of free-, combined, and oxy-Cl species in **water**, including Cl and chloramine chem., ClO2 chem., potential interferences, Cl conversions, UV **spectrometric** detn. of Cl and chloramine, amperometric and iodometric titrns., **colorimetric** methods, electrode methods, chemiluminescence method, **ClO2**- and ClO3- **detn.**, and flow injection **anal.**

Jacob, Rebecca (ASRC) AGL 4,9231

From: Mellerson, Kendra
Sent: Tuesday, November 05, 2002 2:26 PM
To: STIC-ILL
Subject: FW: ill request

-----Original Message-----
Fr m: Soderquist, Arlen
Sent: Tuesday, November 05, 2002 1:51 PM
To: STIC-EIC1700
Subject: ill request

Arlen Soderquist AU 1743 308-3989 CP3-7A11
Serial No. 09/394647 Needed by 11-10-02
Abstract

L22 ANSWER 89 OF 102 CA COPYRIGHT 2002 ACS
AN 59:67991 CA
OREF 59:12507a-b
TI The **colorimetric determination** of **chlorine dioxide** in the **presence** of **chlorine** in **water**
AU Kerenyi, P.; Kuba, P.
CS Chem. Zavody J. Dimitrova, Bratislava, Czech.
SO Chem. Zvesti (1963), 17, 146-51
AB By applying ClO2 for **water** treatment it is necessary to det. its residual content in the treated **water** in the **presence** of **Cl**. The use of tyrosine for this purpose is discussed. ***To eliminate the interfering effect of Cl, monoethylamine is applied.***

LC
11/6
SMP
105

COMPLETED

Jacob, Rebecca (ASRC) LC, AGL 419222

From: Mellerson, Kendra
Sent: Tuesday, November 05, 2002 2:26 PM
To: STIC-ILL
Subject: FW: ill request

-----Original Message-----
Fr m: Soderquist, Arlen
Sent: Tuesday, November 05, 2002 1:52 PM
T : STIC-EIC1700
Subject: ill request

Arlen Soderquist AU 1743 308-3989 CP3-7A11
Serial No. 09/394647 Needed by 11-10-02
Abstract

L22 ANSWER 78 OF 102 CA COPYRIGHT 2002 ACS
AN 70:117967 CA
TI Behavior and **determination** of **chlorine dioxide**
AU Myhrstad, Jan A.; Samdal, J. E.
CS Norw. Inst. Water Res., Oslo, Norway
SO J. Amer. Water Works Ass. (1969), 61(4), 205-8
AB A new combination of methods for **detg. ClO2, ClO2-**, and Cl2 in **water** is discussed. The method is based on direct **photometric detn.** of **ClO2** with Acid Chrome Violet K; iodometric-potentiometric titrn. at pH 7 to give Cl2 + 0.80 ClO2; and an iodometric-potentiometric titrn. at pH 7 after acidifying to pH 2.5-3, to give Cl2 + ClO2 + ClO2-.

LC
11.6
SMP
Completed
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5
1.00

Jacob, Rebecca (ASRC) 419232

From: Mellerson, Kendra
Sent: Tuesday, November 05, 2002 2:26 PM
To: STIC-ILL
Subject: FW: ill request

-----Original Message-----
Fr m: Soderquist, Arlen
Sent: Tuesday, November 05, 2002 1:53 PM
T : STIC-EIC1700
Subject: ill request

Arlen Soderquist AU 1743 308-3989 CP3-7A11
Serial No. 09/394647 Needed by 11-10-02
Abstract

L22 ANSWER 59 OF 102 CA COPYRIGHT 2002 ACS
AN 93:191731 CA
TI Comparison between **colorimetric** and electrometric methods for chlorine and its derivative compounds
AU Piccardi, Giovanni; Barbolani, Emilia; Pantani, Francesco
CS Inst. Anal. Chem., Univ. Florence, Florence, 50121, Italy
SO Water, Air, Soil Pollut. (1980), 13(2), 197-205
AB A crit. comparison of the usual methods of detg. Cl and its compds., particularly those used as sterilants in potable **water** plants, showed that the o-tolidine test is neither reproducible nor specific. **ClO2** is best **detd.** by Acid Chrome Violet K. The role of amperometric titrn. in distinguishing between the various sterilants and in examg. the reactions involved in **water** chlorination is discussed.

COMPLETED

Jacob, Rebecca (ASRC) 419235

From: Mellerson, Kendra
Sent: Tuesday, November 05, 2002 2:26 PM
To: STIC-ILL
Subject: FW: ill request

-----Original Message-----
From: Soderquist, Arlen
Sent: Tuesday, November 05, 2002 1:59 PM
To: STIC-EIC1700
Subject: ill request

Arlen Soderquist AU 1743 308-3989 CP3-7A11
Serial No. 09/394647 Needed by 11-10-02
Abstract

L22 ANSWER 16 OF 102 CA COPYRIGHT 2002 ACS
AN 123:237075 CA
TI Study of organic matter from raw and clarified waters by global analytical parameters
AU Lefebvre, E.
CS SAUR, Centre Pierre Crussard, Maurepas, 78310, Fr.
SO Revue des Sciences de l'Eau (1995), 8(1), 125-50
LA French
AB The mol. wt. fractionation of dissolved org. matter in raw and clarified waters is described. Raw and clarified waters (resp. rw and cw) were sampled in SAUR water plants. All raw and clarified water samples were characterized according to total org. carbon (TOC), UV absorbance (254 nm), and trihalomethane formation potential (THMFP) under the following conditions: about 20 C, 4 mg Cl2/mg TOC, and a 72-h contact time in the dark. A Dohrmann DC80 and a Uvikon 930 were used for the detn. of TOC (DOC) and UV-absorbance at 254 nm, resp. When a preoxydation step was employed at the water plant, the clarification treatment was performed with a lab. app. Bioeliminable Org. Dissolved Carbon in water was detd. by the method described. Cl2 and ClO2 demands of raw and clarified waters were conducted as batch operations with oxidant doses of 1, 2, and 4 mg oxidant per mg TOC. **Residual** chlorine and **chlorine dioxide** in solns. were **detd.** resp. by **spectrophotometric** measurements by two **colorimetric** DPD and ***ACVK methods***.

COMPLETED

Jacob, Rebecca (ASRC) 4192238

From: Mellerson, Kendra
Sent: Tuesday, November 05, 2002 2:26 PM
To: STIC-ILL
Subject: FW: ill request

-----Original Message-----
Fr m: Soderquist, Arlen
Sent: Tuesday, November 05, 2002 2:03 PM
T : STIC-EIC1700
Subject: ill request

Arlen Soderquist AU 1743 308-3989 CP3-7A11
Serial No. 09/394647 Needed by 11-10-02
Abstract

L7 ANSWER 9 OF 16 CA COPYRIGHT 2002 ACS
AN 118:109225 CA
TI Using **ion chromatography** to analyze inorganic disinfection by-products
AU **Hautman, Daniel P.**; Bolyard, Michele
CS US Environ. Protect. Agency, Cincinnati, OH, 45268, USA
SO Journal - American Water Works Association (1992), 84(11), 88-93
AB **Ion chromatog.** is used to analyze **drinking** water for inorg. disinfection byproducts-the oxyhalides of Cl and Br. This investigation focused on stabilizing and preserving ClO2- by studying several agents known to quench its reaction with species present in **drinking** water. Based on the initial stability study, ethylenediamine was an effective preservative and was further studied using finished water from various utilities. Also, the measurement of BrO3- following ozonization of a river water matrix contg. 0.037 mg Br-/L is illustrated.

CAS

Jacob, Re[redacted] (SRC)

419230

From: Mellerson, Kendra
Sent: Tuesday, November 05, 2002 2:26 PM
To: STIC-ILL
Subject: FW: ill request

-----Original Message-----
From: Soderquist, Arlen
Sent: Tuesday, November 05, 2002 1:49 PM
T : STIC-EIC1700
Subject: ill request

Arlen Soderquist AU 1743 308-3989 CP3-7A11
Serial No. 09/394647 Needed by 11-10-02
Abstract

L22 ANSWER 92 OF 102 CA COPYRIGHT 2002 ACS
AN 55:53203 CA
OREF 55:10191g-h
TI **Determination** of **chlorine dioxide** in concentrated solutions in the **presence** of **chlorine**
AU Lepeintre, Marcel; Dupuy, Jeanine; Ouvard, Jean
SO Chim. anal. (1960), 42, 498-500
AB ClO_2 forms a **colored** product with tyrosine. ***The interference of Cl is removed by fixation with EtNH2.*** The absorption of the **colored** product is measured at 490 mμ with an error within 5%.

COMPLETED

Jacob, Rebecca (ASRC) 419236

From: Mellerson, Kendra
Sent: Tuesday, November 05, 2002 2:26 PM
To: STIC-ILL
Subject: FW: ill request

-----Original Message-----
From: Soderquist, Arlen
Sent: Tuesday, November 05, 2002 2:00 PM
T : STIC-EIC1700
Subject: ill request

Arlen Soderquist AU 1743 308-3989 CP3-7A11
Serial No. 09/394647 Needed by 11-10-02
Abstract

L7 ANSWER 13 OF 16 CA COPYRIGHT 2002 ACS
AN 104:23835 CA
TI Ionic contamination: tracking it with ion chromatography
AU **Joyce, R. J.**
CS Dionex Corp., Sunnyvale, CA, 94088, USA
SO Ultrapure **Water** (1985), 2(4), 36-9
AB A review with 6 refs. on the development and state-of-the-art application of ion chromatog. for detn. of common anions and cations, carboxylates, and transition metal ions at ppb levels in industrial-use, high-purity waters is presented. Methods, including photometric detection and dual-column ion chromatog. in conjunction with effective cond. measurements, are emphasized.

COMPLETED